STDs in Adolescents and Young Adults

Public Health Impact

Compared to older adults, adolescents (10- to 19-year-olds) and young adults (20- to 24-year-olds) are at higher risk for acquiring STDs for a number of reasons. For example, they may be more likely to have multiple (sequential or concurrent) sexual partners rather than a single, long-term relationship. In addition, for some STDs, for example *Chlamydia trachomatis*, adolescent women may have a physiologically increased susceptibility to infection due to increased cervical ectopy.

The higher prevalence of STDs among adolescents also reflects multiple barriers to quality STD prevention services, including lack of insurance or other ability to pay, lack of transportation, discomfort with facilities and services designed for adults, and concerns about confidentiality.

Observations

- Numerous prevalence studies in various clinic populations have shown that sexually active adolescents have high rates of chlamydial infection.[1-3] The Regional Infertility Prevention Projects that routinely perform large scale screening for detecting chlamydial infections among women attending family planning clinics demonstrate that younger women consistently have higher positivity than older women, even when prevalence declines. An example is the Region X Chlamydia Project, which has screened women in family planning clinics since 1988 (Figure K).
- Among women in 2002, as in previous years, 15- to 24-year-olds had the highest rates of gonorrhea compared to women in all other age categories (Figure P and Table 21). In addition, 20- to 29-year-old women had the highest rates of primary and secondary syphilis in 2002 (Figure R and Table 34). Among men, 20- to 24-year-olds had the highest rate of gonorrhea and 30- to 39-year-olds had the highest rate of primary and secondary syphilis (Figures Q and S and Tables 21 and 34).
- Gonorrhea rates among 15- to 19-year-olds have decreased 12.2% from 542.4 per 100,000 population in 1998 to 476.4 per 100,000 population in 2002.
- In 15- to 19-year-old women, the 2002 gonorrhea rate of 675.6 cases per 100,000 females was a 3.9% decrease from the 2001 rate of 703.2. Among young women in the 20- to 24-year-old group, the rate of gonorrhea in 2002 was 650.3, a 2.1% decrease from 664.1 in 2001. Since 1998, the rates in these two age groups have been converging (Figure P, Table 21).
- Rates of gonorrhea among male adolescents generally decreased between the years 1991 and 2002 (Figure Q). In the 15- to 19-year-old group, the gonorrhea rate declined for the fourth year in a row, from 344.4 cases per 100,000 males in

1998 to 287.9 cases per 100,000 males in 2002 (a 16.4% decline) among young men in the 20- to 24-year-old group. After declining in the early 1990s, the gonorrhea rate has remained relatively unchanged since 1997 (537.1 cases per 100,000 males in 1997 and 538.1 cases per 100,000 males in 2002).

- Since 1990, approximately 20,000 female National Job Training Program entrants have been screened each year for chlamydia. This program, administered by the U.S. Department of Labor at more than 100 sites throughout the country, is a job training program for economically-disadvantaged youth aged 16 through 24 years.
- Chlamydial infection is widespread geographically and highly prevalent among economically-disadvantaged young women in the National Job Training Program.[3] Among women entering the program from 28 states and Puerto Rico in 2002, based on their place of residence before program entry, the median state-specific chlamydia prevalence was 10.1% (range 4.4% to 16.8%) (Figure L).
- Data from National Job Training Program centers that submit gonorrhea specimens from female students aged 16 to 24 years to a national contract laboratory indicate a high prevalence of gonococcal infection in this population. Specimens from at least 100 students from each of 21 states were tested by the contract laboratory; the median state-specific gonorrhea prevalence was 2.9% (range 0.0% to 6.8%) in 2002 (Figure O).
- The Adolescent Women Reproductive Health Monitoring Project was established in 1999 to monitor STD prevalence and reproductive health measures among adolescent women (less than 20 years old) in non-traditional venues, including school-based clinics, juvenile corrections facilities, drug treatment centers, and organizations serving street youth. In 2002, results from this screening project, that uses urine-based tests, identified a median site-specific chlamydia positivity of 13.2% (range 7.9% to 15.9%) at 19 school-based clinics and 9.7% (range 5.2% to 39.1%) at 14 organizations serving street youth (Figure M). Median site-specific gonorrhea positivity was 4.3% (range 1.6% to 8.5%) at school-based clinics and 1.7% (range 0.0% to 13.9%) at organizations serving street youth (Figure N).
- Among adolescent women attending juvenile corrections facilities, data from the Adolescent Women Reproductive Health Monitoring Project and the Jail STD Prevalence Monitoring Project identified a median chlamydia positivity of 16.7% (range 6.3% to 28.3%) (Figure II) and a median gonorrhea positivity of 5.6% (range 0.6% to 12.4%) (Figure KK). *See* **Special Focus Profiles** (STDs in Persons Entering Corrections Facilities).

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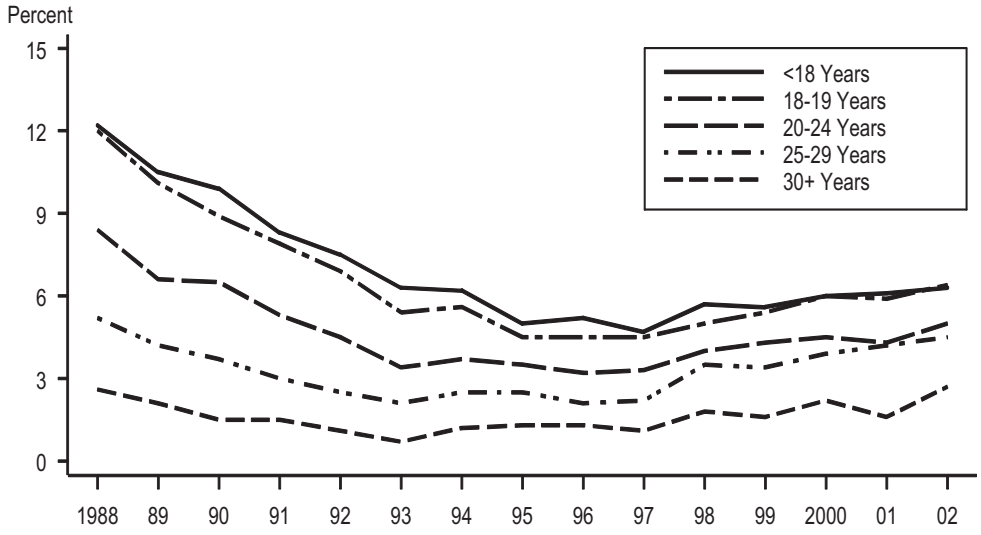
[1] Centers for Disease Control and Prevention. Recommendations for the prevention and management of *Chlamydia trachomatis* infections, 1993. *MMWR* 1993;42(No. RR-12).

[2] Lossick J, Delisle S, Fine D, Mosure D, Lee V, Smith C. Regional program for widespread screening for *Chlamydia trachomatis* in family planning clinics. In: Bowie WR, Caldwell HD, Jones RP, et al., eds. Chlamydial Infections: Proceedings of the Seventh International Symposium of Human Chlamydial Infections, Cambridge, Cambridge University Press 1990, pp. 575-9.

[3] Mertz, KJ, Ransom RL, St. Louis ME, Groseclose SL, Hadgu A, Levine WC, Hayman C. Decline in the prevalence of genital chlamydia infection in young women entering a National Job Training Program, 1990-1997. *Am J Pub Health* 2001;91(8):1287-1290.

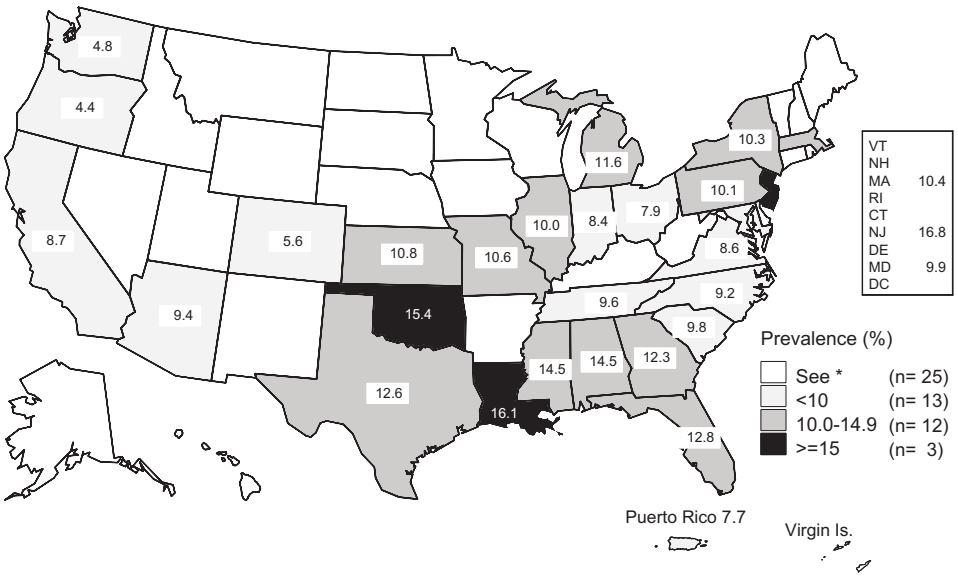
Figure K. Chlamydia — Positivity among women tested in family planning clinics by age group: Region X, 1988–2002



Note: Women who met screening criteria were tested. Trends not adjusted for changes in laboratory test method and associated increases in test sensitivity in 1994 and 1999–2002.

SOURCE: Regional Infertility Prevention Projects: Region X Chlamydia Project

Figure L. Chlamydia — Prevalence among 16-24 year-old women entering the National Job Training Program by state of residence: United States and outlying areas, 2002

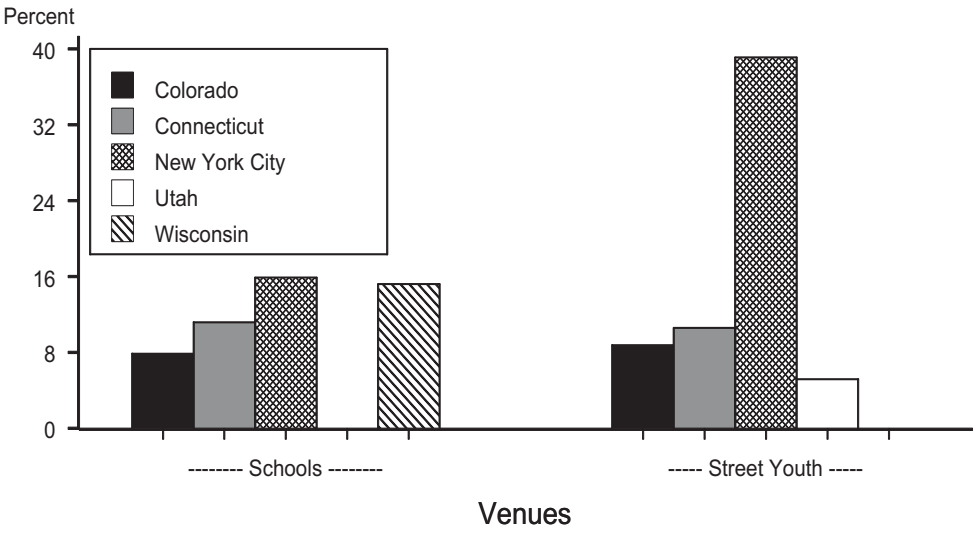


*Fewer than 100 women residing in these states and entering the National Job Training Program were screened for chlamydia in 2002.

Note: The overall chlamydia prevalence among female students entering the National Job Training Program in 2002 was 10.5%.

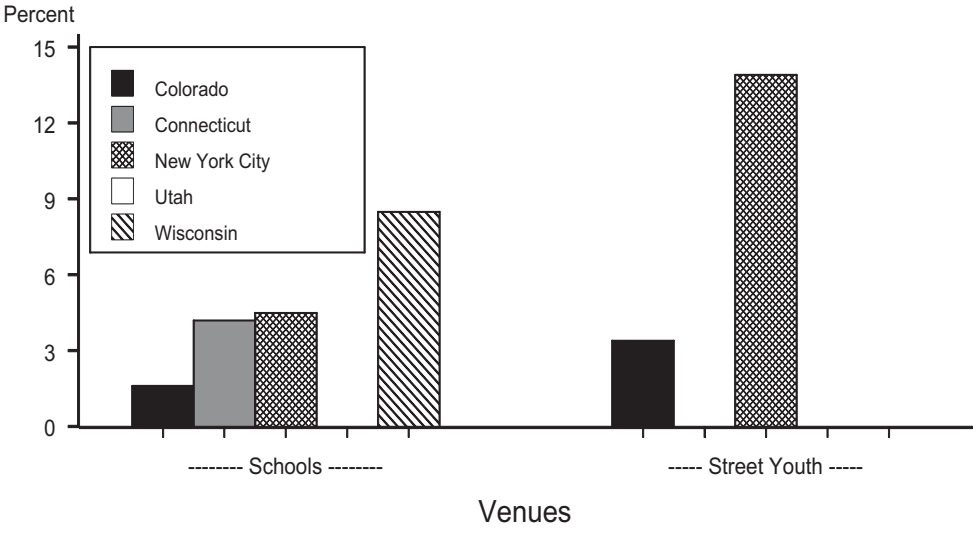
SOURCE: U.S. Department of Labor

Figure M. Chlamydia — Adolescent Women Reproductive Health Monitoring Project chlamydia positivity by venue and project area, 2002



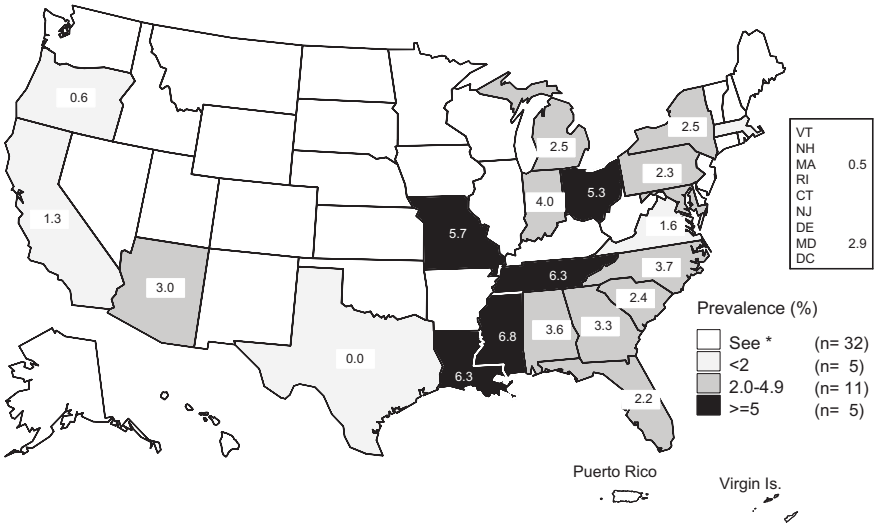
Note: Where data are missing for project areas and venues, no testing or fewer than 50 chlamydia tests were performed at the missing location in 2002.

Figure N. Gonorrhea — Adolescent Women Reproductive Health Monitoring Project gonorrhea positivity by venue and project area, 2002



Note: Where data are missing for project areas and venues, no testing or fewer than 50 gonorrhea tests were performed in 2002.

Figure O. Gonorrhea — Prevalence among 16-24 year-old women entering the National Job Training Program by state of residence: United States and outlying areas, 2002



*Fewer than 100 women residing in these states and entering the National Job Training Program were screened for gonorrhea by the national contract laboratory in 2002.

Note: Many training centers test female students for gonorrhea using local laboratories; these results are not available to CDC. For this map, gonorrhea test results for students at centers submitting specimens to the national contract laboratory were included if the number of gonorrhea tests submitted was greater than 90% of the number of chlamydia tests submitted. The overall gonorrhea prevalence among female students entering the National Job Training Program in 2002 was 2.9%.

SOURCE: U.S. Department of Labor

Figure P. Gonorrhea — Age-specific rates among women 10-44 years of age: United States, 1981–2002

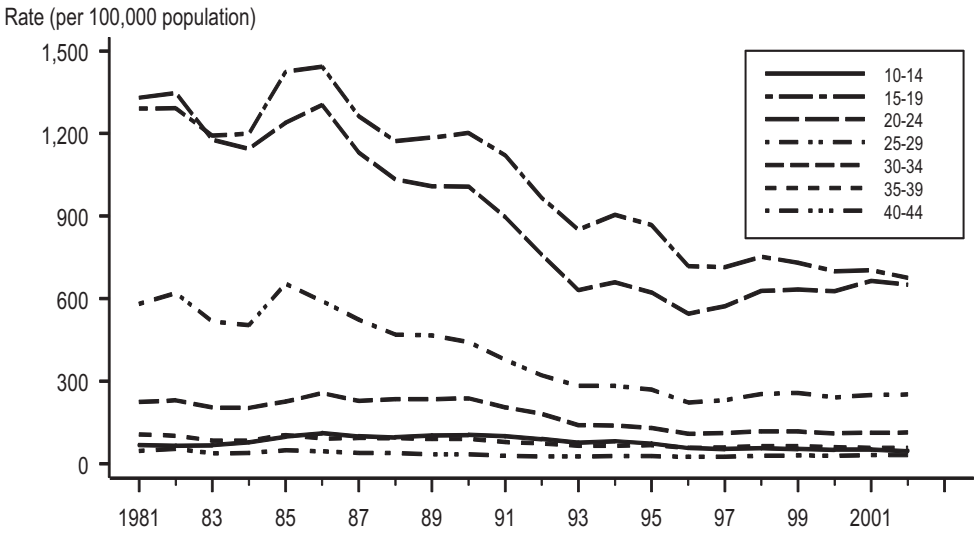


Figure Q. Gonorrhea — Age-specific rates among men 10-44 years of age: United States, 1981–2002

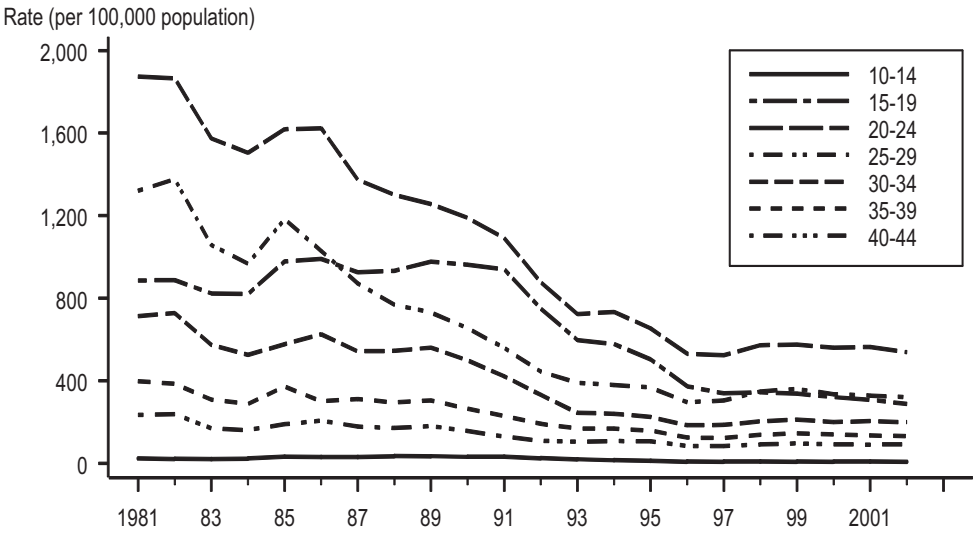


Figure R. Primary and secondary syphilis — Age-specific rates among women 10-44 years of age: United States, 1981–2002

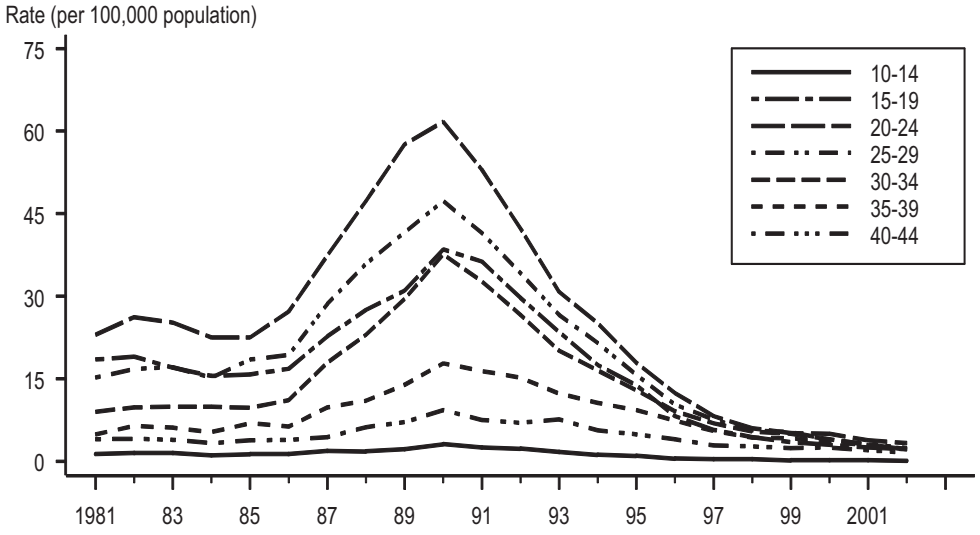


Figure S. Primary and secondary syphilis — Age-specific rates among men 10-44 years of age: United States, 1981–2002